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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,070	09/24/2003	Rama Bhatt	200144.404	5866

500 7590 12/15/2006

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EXAMINER

RAO, DEEPAK R

ART UNIT	PAPER NUMBER
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1624

DATE MAILED: 12/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/671,070	Applicant(s) BHATT ET AL.	
	Examiner Deepak Rao	Art Unit 1624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-10 and 12-18 are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-10, 12-18 are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claims 1, 3-10 and 12-18 are pending in this application.

Election/Restrictions

The examination was based on the elected species of Compound no. 177. Based on the election of species guidelines, the prior art search was conducted to the extent of the compounds of formula (recited in claim 1) wherein X and Y are N, Z is CH or CR; Q is NH; R³ is NH₂; and R, R¹, R², R⁴, R⁵, R⁶ and R⁷ are as defined in the claims, the art found was applied.

As the prior art rejection has not been overcome, the search was not extended. The definitions of the variables from the generic claims, other than those indicated above for the searched subgenus, are held withdrawn from consideration, pursuant to 37 CFR 1.142(b) and the guidelines of MPEP 803.02, as being drawn to non elected subject matter.

Withdrawn Rejections/Objections:

Applicant is notified that any outstanding rejection/objection that is not expressly maintained in this office action has been withdrawn or rendered moot in view of applicant's amendments and/or remarks.

The following rejections are maintained:

Claims 1-3, 5-10, 12, and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hitchings et al., U.S. Patent No. 2,691,655. The reasons provided in the previous office action are incorporated here by reference.

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Applicant's arguments have been fully considered but they were not deemed to be persuasive. Applicant first argues that 'the phenyl group in the compounds of Hitchings et al. is unsubstituted'. This is not found to be persuasive because the reference discloses compounds wherein the phenyl group is substituted, see for example, compound of Example 15 (depicted in the previous office action at page 8). The phenyl group has a 4-Br substituent. The instant claims require that the substituent at the 3-position (R^2) is for example Br. Therefore, the instant compounds differ by the position of the substituent and therefore are positional isomers of the reference compounds.

Applicant further argues that ' R^1 and R^2 of amended claim 1 do not recite H and the reference does not teach a non-hydrogen substituent at both the ortho and meta positions of the phenyl group'. This is not consistent with the instant amendment. As amended, claim 1 continues to define R^1 to be H and only R^2 definition does not include H. Therefore, it is maintained that the instantly claimed compounds are positional isomers of the reference compounds and the obviousness rejection of the previous office action is maintained.

The following rejections are necessitated by the amendment:

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claim 4 recites the limitation " R^4 or R^5 is acyl" in lines 1-2. There is insufficient antecedent basis for this limitation in claim 1 on which claim 4 is dependent. Claim 1 defines the variables as an "acyl containing group". Claim 13 also recites the same limitation that " R^4 or R^5 is acyl" and therefore, lacks antecedent basis from claim 10.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 1-3, 5-10, 12, and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hitchings et al., U.S. Patent No. 2,691,655. The reference teaches pyrimidine compounds useful as pharmaceutical agents, see the formula in col. 1 and the compounds of the Examples, e.g., Examples 7-9, etc. The instant claims define R^2 to be a non-hydrogen substituent such as an alkyl group, e.g., methyl. Therefore, the instantly claimed compounds differ from the reference compounds by methyl group in place of H of the reference (i.e., H vs. Methyl) and it is well established that compounds that differ by having a CH_3 group in place of hydrogen are structural analogs or homologs. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the reference compounds to prepare the structural homolog. One having ordinary skill in the art would have been motivated to prepare the instantly claimed compounds because such structurally homologous compounds are expected to possess similar properties. It has been held that compounds that are structurally homologous to prior art compounds are *prima facie* obvious, absent a showing of unexpected results.

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2. Claims 1-3, 5-7, 10, 12, and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chaudhari et al., WO 02/36586. The reference teaches pyrimidine compounds useful as pharmaceutical agents, see the formula I in page 4 and the compounds disclosed in Table 1, e.g., Example # 3 (depicted in the previous office action). The instant claims define R² to be a non-hydrogen substituent such as an alkyl group, e.g., methyl. Therefore, the instantly claimed compounds differ from the reference compounds by methyl group in place of H of the reference (i.e., H vs. Methyl) and it is well established that compounds that differ by having a CH₃ group in place of hydrogen are structural analogs or homologs. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the reference compounds to prepare the structural homolog. One having ordinary skill in the art would have been motivated to prepare the instantly claimed compounds because such structurally homologous compounds are expected to possess similar properties. It has been held that compounds that are structurally homologous to prior art compounds are *prima facie* obvious, absent a showing of unexpected results.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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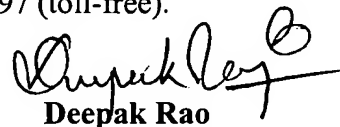
the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deepak Rao whose telephone number is (571) 272-0672. The examiner can normally be reached on Monday-Friday from 8:00am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson, can be reached at (571) 272-0661. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Deepak Rao
Primary Examiner
Art Unit 1624

December 11, 2006